

THE ASTROPHYSICAL JOURNAL
CONTENTS OF VOLUME 597, PART 1

2003 NOVEMBER 1, NUMBER 1

	Page
THE PROBABILITY DISTRIBUTION FUNCTION OF LIGHT IN THE UNIVERSE: RESULTS FROM HYDRODYNAMIC SIMULATIONS Ⓢ <i>Jeremiah P. Ostriker, Kentaro Nagamine, Renyue Cen, & Masataka Fukugita</i>	1
A MODEL-INDEPENDENT DETERMINATION OF THE EXPANSION AND ACCELERATION RATES OF THE UNIVERSE AS A FUNCTION OF REDSHIFT AND CONSTRAINTS ON DARK ENERGY <i>Ruth A. Daly & S. G. Djorgovski</i>	9
SIMULATIONS OF GALAXY FORMATION IN A COLD DARK MATTER UNIVERSE. II. THE FINE STRUCTURE OF SIMULATED GALACTIC DISKS Ⓢ <i>Mario G. Abadi, Julio F. Navarro, Matthias Steinmetz, & Vincent R. Eke</i>	21
ANGULAR MOMENTUM DISTRIBUTION OF HOT GAS AND IMPLICATIONS FOR DISK GALAXY FORMATION <i>D. N. Chen, Y. P. Jing, & Kohji Yoshikawa</i>	35
ON NONPRIMORDIAL DEUTERIUM PRODUCTION BY ACCELERATED PARTICLES Ⓢ <i>Tijana Prodanović & Brian D. Fields</i>	48
HIGH-RESOLUTION SIMULATIONS OF NON-GAUSSIAN COSMIC MICROWAVE BACKGROUND MAPS IN SPHERICAL COORDINATES Ⓢ <i>M. Liguori, S. Matarrese, & L. Moscardini</i>	57
ON THE EVOLUTION OF THE IONIZING EMISSIVITY OF GALAXIES AND QUASARS REQUIRED BY THE HYDROGEN REIONIZATION <i>Jordi Miralda-Escudé</i>	66
LYMAN BREAK GALAXIES AND REIONIZATION OF UNIVERSE <i>A. Gayler Harford & Nickolay Y. Gnedin</i>	74
OBSERVATIONAL ESTIMATES OF THE INITIAL POWER SPECTRUM AT SMALL SCALE FROM Ly α ABSORBERS <i>M. Demianski & A. Doroshkevich</i>	81
COSMIC SHEAR STATISTICS IN THE SUPRIME-CAM 2.1 SQUARE DEGREE FIELD: CONSTRAINTS ON Ω_m AND σ_8 <i>Takashi Hamana, Satoshi Miyazaki, Kazuhiro Shimasaku, Hisanori Furusawa, Mamoru Doi, Masaru Hamabe, Katsumi Imai, Masahiko Kimura, Yutaka Komiyama, Fumiaki Nakata, Norio Okada, Sadanori Okamura, Masami Ouchi, Maki Sekiguchi, Masafumi Yagi, & Naoki Yasuda</i>	98
SUPERMASSIVE BLACK HOLE BINARIES AS GALACTIC BLENDERS <i>Henry E. Kandrup, Ioannis V. Sideris, Balša Terzić, & Courtlandt L. Bohn</i>	111
NONLINEAR OUTCOME OF GRAVITATIONAL INSTABILITY IN DISKS WITH REALISTIC COOLING <i>Bryan M. Johnson & Charles F. Gammie</i>	131
THE ENVIRONMENT OF ACTIVE GALACTIC NUCLEI IN THE SLOAN DIGITAL SKY SURVEY <i>Christopher J. Miller, Robert C. Nichol, Percy L. Gómez, Andrew M. Hopkins, & Mariangela Bernardi</i>	142
IDENTIFYING COMPACT SYMMETRIC OBJECTS IN THE SOUTHERN SKY <i>G. B. Taylor & A. B. Peck</i>	157
THE NUCLEAR SPECTRAL ENERGY DISTRIBUTION OF NGC 6251: A BL LACERTAE OBJECT IN THE CENTER OF AN FR I RADIO GALAXY <i>Marco Chiaberge, Roberto Gilli, Alessandro Capetti, & F. Duccio Macchetto</i>	166
AN XMM-NEWTON AND CHANDRA INVESTIGATION OF THE NUCLEAR ACCRETION IN THE SOMBRERO GALAXY (NGC 4594) <i>S. Pellegrini, A. Baldi, G. Fabbiano, & D.-W. Kim</i>	175
HIGH-ENERGY GAMMA RAYS FROM FR I JETS <i>L. Stawarz, M. Sikora, & M. Ostrowski</i>	186
CHANDRA OBSERVATIONS OF POINT SOURCES IN A2255 <i>David S. Davis, Neal A. Miller, & Richard F. Mushotzky</i>	202

	Page
CAPTURING A STAR FORMATION BURST IN GALAXIES INFALLING ONTO THE CLUSTER A1367 <i>G. Garavzi, L. Cortese, A. Boselli, J. Iglesias-Paramo, J. M. Vilchez, & L. Carrasco</i>	210
WEAK-LENSING DISCOVERY AND TOMOGRAPHY OF A CLUSTER AT $z = 0.68$ ⑥ <i>D. Wittman, V. E. Margoniner, J. A. Tyson, J. G. Cohen, A. C. Becker, & I. P. Dell'Antonio</i>	218
RED GALAXY CLUSTERING IN THE NOAO DEEP WIDE-FIELD SURVEY ⑥ <i>Michael J. I. Brown, Arjun Dey, Buell T. Jannuzi, Tod R. Lauer, Glenn P. Tiede, & Valerie J. Mikles</i>	225
THE DEEP GROTH STRIP SURVEY. IX. EVOLUTION OF THE FUNDAMENTAL PLANE OF FIELD GALAXIES ⑥ <i>Karl Gebhardt, S. M. Faber, David C. Koo, Myungshin Im, Luc Simard, Garth D. Illingworth, Andrew C. Phillips, Vicki L. Sarajedini, Nicole P. Vogt, Benjamin Weiner, & Christopher N. A. Willmer</i>	239
THE FIRST DEEP ADVANCED CAMERA FOR SURVEYS $\text{Ly}\alpha$ IMAGES OF LOCAL STARBURST GALAXIES <i>Daniel Kunth, Claus Leitherer, J. Miguel Mas-Hesse, Göran Östlin, & Artashes Petrosian</i>	263
DEPENDENCE OF DUST OBSCURATION ON STAR FORMATION RATES IN GALAXIES <i>J. Afonso, A. Hopkins, B. Mobasher, & C. Almeida</i>	269
RADIO CONSTRAINTS ON THE STARBURST AGES OF TWO WOLF-RAYET GALAXIES <i>Q. F. Yin, J. H. Huang, & W. Zheng</i>	274
SUPERGALACTIC WINDS DRIVEN BY MULTIPLE SUPER-STAR CLUSTERS <i>Guillermo Tenorio-Tagle, Sergiy Silich, & Casiana Muñoz-Tuñón</i>	279
THE ASYMPTOTIC GIANT BRANCH OF NGC 205: THE CHARACTERISTICS OF CARBON STARS AND M GIANTS IDENTIFIED FROM <i>JHK</i> IMAGES <i>T. J. Davidge</i>	289
POST-ASYMPTOTIC GIANT BRANCH EVOLUTION IN THE LARGE MAGELLANIC CLOUD: A STUDY OF THE CENTRAL STARS OF PLANETARY NEBULAE <i>Eva Villaver, Letizia Stanghellini, & Richard A. Shaw</i>	298
DYNAMICAL FRICTION ON STAR CLUSTERS NEAR THE GALACTIC CENTER <i>Sungsoo S. Kim & Mark Morris</i>	312
REALLY COOL STARS AND THE STAR FORMATION HISTORY AT THE GALACTIC CENTER ⑥ <i>R. D. Blum, Solange V. Ramirez, K. Sellgren, & K. Olsen</i>	323
ON THE DETERMINATION OF EJECTA STRUCTURE AND EXPLOSION ASYMMETRY FROM THE X-RAY KNOTS OF CASSIOPEIA A <i>J. Martin Laming & Una Hwang</i>	347
WHERE WAS THE IRON SYNTHESIZED IN CASSIOPEIA A? <i>Una Hwang & J. Martin Laming</i>	362
SN 1993J VLBI. III. THE EVOLUTION OF THE RADIO SHELL ⑥ <i>M. F. Bietenholz, N. Bartel, & M. P. Rupen</i>	374
SMALL-SCALE STRUCTURE IN THE GALACTIC INTERSTELLAR MEDIUM: IMPLICATIONS FOR GALAXY CLUSTER STUDIES <i>Joel N. Bregman, Megan C. Novicki, Jessica E. Krick, & John S. Arabadjis</i>	399
THE HOMOGENEITY OF INTERSTELLAR KRYPTON IN THE GALACTIC DISK <i>Stefan I. B. Cartledge, David M. Meyer, & J. T. Lauroesch</i>	408
VLA AND BIMA OBSERVATIONS TOWARD THE EXCITING SOURCE OF THE MASSIVE HH 80-81 OUTFLOW <i>Y. Gómez, L. F. Rodríguez, J. M. Girart, G. Garay, & J. Martí</i>	414
INNER STRUCTURE OF STARLESS CORE L694-2 DERIVED FROM MILLIMETER-WAVE INTERFEROMETRY <i>Daniel W. A. Harvey, David J. Wilner, Philip C. Myers, & Mario Tafalla</i>	424
HIGH-RESOLUTION CONTINUUM IMAGING AT 1.3 AND 0.7 CENTIMETERS OF THE W3 IRS 5 REGION <i>T. L. Wilson, D. A. Boboltz, R. A. Gaume, & S. T. Megeath</i>	434
HUBBLE SPACE TELESCOPE STIS SPECTRUM OF RW AURIGAE A: EVIDENCE FOR AN IONIZED BELTLIKE STRUCTURE AND MASS EJECTION IN TIMESCALES OF A FEW HOURS <i>Ana I. Gómez de Castro & Eva Verdugo</i>	443
EARLY OPTICAL AFTERGLOWS FROM WIND-TYPE GAMMA-RAY BURSTS <i>Shiho Kobayashi & Bing Zhang</i>	455
A STUDY OF THE AFTERGLOWS OF FOUR GAMMA-RAY BURSTS: CONSTRAINING THE EXPLOSION AND FIREBALL MODEL <i>S. A. Yost, F. A. Harrison, R. Sari, & D. A. Frail</i>	459
THE EVOLUTION OF THE HIGH-ENERGY TAIL IN THE QUIESCENT SPECTRUM OF THE SOFT X-RAY TRANSIENT AQUILA X-1 <i>S. Campana & L. Stella</i>	474

CONTENTS

v

X-RAY VARIABILITY OF THE MAGNETIC CATAclysmic VARIABLE V1432 AQUILAE AND THE SEYFERT GALAXY NGC 6814 <i>K. Mukai, C. Hellier, G. Madejski, J. Patterson, & D. R. Skillman</i>	Page 479
CHANDRA/VERY LARGE ARRAY FOLLOW-UP OF TeV J2032+4131, THE ONLY UNIDENTIFIED TeV GAMMA-RAY SOURCE <i>Yousaf M. Butt, Paula Benaglia, Jorge A. Combi, Michael Corcoran, Thomas M. Dame, Jeremy Drake, Marina Kaufman Bernadó, Peter Milne, Francesco Miniati, Martin Pohl, Olaf Reimer, Gustavo E. Romero, & Michael Rupen</i>	494
ACCRETION-INDUCED COLLIMATED FAST WIND MODEL FOR η CARINAE <i>Noam Soker</i>	513
A DRIVING MECHANISM FOR THE NEWLY DISCOVERED LONG-PERIOD PULSATING SUBDWARF B STARS <i>G. Fontaine, P. Brassard, S. Charpinet, E. M. Green, P. Chayer, M. Billères, & S. K. Randall</i>	518
MULTIWAVELENGTH OBSERVATIONS OF FLARES ON AD LEONIS <i>Suzanne L. Hawley, Joel C. Allred, Christopher M. Johns-Krull, George H. Fisher, William P. Abbett, Ilya Alekseev, Stavros I. Avouloupis, Susana E. Deustua, Alastair Gunn, John H. Seiradakis, Martin M. Sirk, & Jeff A. Valenti</i>	535
USING NARROWBAND PHOTOMETRY TO DETECT YOUNG BROWN DWARFS IN IC 348 \oplus <i>A. K. Mainzer & Ian S. McLean</i>	555
RESONANT INCLINATION EXCITATION OF MIGRATING GIANT PLANETS <i>Edward W. Thommes & Jack J. Lissauer</i>	566
INFRARED OBSERVATIONS DURING THE SECONDARY ECLIPSE OF HD 209458b. II. STRONG LIMITS ON THE INFRARED SPECTRUM NEAR 2.2 μ m <i>L. Jeremy Richardson, Drake Deming, & Sara Seager</i>	581
SCATTERED LIGHT FROM CLOSE-IN EXTRASOLAR PLANETS: PROSPECTS OF DETECTION WITH THE MOST SATELLITE <i>Daniel Green, Jaymie Matthews, Sara Seager, & Rainer Kuschnig</i>	590
HELIUM IN LUNAR SAMPLES ANALYZED BY HIGH-RESOLUTION STEPWISE ETCHING: IMPLICATIONS FOR THE TEMPORAL CONSTANCY OF SOLAR WIND ISOTOPIC COMPOSITION \oplus <i>Veronika S. Heber, Heinrich Baur, & Rainer Wieler</i>	602
VARIABILITY OF EGRET GAMMA-RAY SOURCES \oplus <i>P. L. Nolan, W. F. Tompkins, I. A. Grenier, & P. F. Michelson</i>	615
REALIZING INTEGRAL FIELD SPECTROSCOPY IN THE FAR-INFRARED <i>Leslie W. Looney, Walfried Raab, Albrecht Poglitsch, & Norbert Geis</i>	628
ERRATUM: "SECULAR EVOLUTION OF HIERARCHICAL PLANETARY SYSTEMS" (ApJ, 592, 1201 [2003]) <i>Man Hoi Lee & S. J. Peale</i>	644
INSTRUCTIONS TO AUTHORS	i
2003 NOVEMBER 10, NUMBER 2	
DECAYING COLD DARK MATTER AND THE EVOLUTION OF THE CLUSTER ABUNDANCE <i>Masamune Oguri, Keitaro Takahashi, Hiroshi Ohno, & Kei Kotake</i>	645
STUDYING CLUSTERS WITH PLANCK <i>Martin White</i>	650
LENSING EFFECTS OF MISALIGNED DISKS IN DARK MATTER HALOS <i>Ryan Quadri, Ole Möller, & Priyamvada Natarajan</i>	659
MASS AND DUST IN THE DISK OF A SPIRAL LENS GALAXY <i>Joshua N. Winn, Patrick B. Hall, & Paul L. Schechter</i>	672
THE CANADA-UK DEEP SUBMILLIMETER SURVEY. VII. OPTICAL AND NEAR-INFRARED IDENTIFICATIONS FOR THE 14 HOUR FIELD <i>T. M. A. Webb, S. J. Lilly, D. L. Clements, S. Eales, M. Yun, M. Brodwin, L. Dunne, & W. K. Gear</i>	680
VERY HIGH COLUMN DENSITY AND SMALL REDDENING TOWARD GRB 020124 AT $z = 3.20$ <i>J. Hjorth, P. Møller, J. Gorosabel, J. P. U. Fynbo, S. Toft, A. O. Jaunsen, A. A. Kaas, T. Pursimo, K. Torii, T. Kato, H. Yamaoka, A. Yoshida, B. Thomsen, M. I. Andersen, I. Burud, J. M. Castro Cerón, A. J. Castro-Tirado, A. S. Fruchter, L. Kaper, C. Kouveliotou, N. Masetti, E. Palazzi, H. Pedersen, E. Pian, J. Rhoads, E. Rol, N. R. Tanvir, P. M. Vreeswijk, R. A. M. J. Wijers, & E. P. J. van den Heuvel</i>	699
THE NATURE OF DAMPED Ly α ABSORBING GALAXIES AT $z \leq 1$: A PHOTOMETRIC REDSHIFT SURVEY OF DAMPED Ly α ABSORBERS <i>Hsiao-Wen Chen & Kenneth M. Lanzetta</i>	706
THE METALLICITIES OF STAR-FORMING GALAXIES AT INTERMEDIATE REDSHIFTS $0.47 < z < 0.92$ <i>Simon J. Lilly, C. Marcella Carollo, & Alan N. Stockton</i>	730

	Page
CHANDRA OBSERVATION OF 3C 212: A NEW LOOK AT THE X-RAY AND ULTRAVIOLET ABSORBERS Ⓢ <i>T. L. Aldcroft, A. Siemiginowska, M. Elvis, S. Mathur, F. Nicastro, & S. S. Murray</i>	751
HOW MANY ACTIVE GALAXIES AND QSOs WILL FUTURE SPACE MISSIONS DETECT? <i>Paola Andreani, Luigi Spinoglio, & Matthew A. Malkan</i>	759
A HUBBLE SPACE TELESCOPE SURVEY OF EXTENDED [O III] λ 5007 Å EMISSION IN A FAR-INFRARED-SELECTED SAMPLE OF SEYFERT GALAXIES: RESULTS <i>H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, A. L. Kinney, & J. E. Pringle</i>	768
ACCRETION DISK SPECTRA OF ULTRALUMINOUS X-RAY SOURCES IN NEARBY SPIRAL GALAXIES AND GALACTIC SUPERLUMINAL JET SOURCES <i>Ken Ebisawa, Piotr Życki, Aya Kubota, Tsunefumi Mizuno, & Ken-ya Watarai</i>	780
MODELING HELICAL STRUCTURES IN RELATIVISTIC JETS Ⓢ <i>Philip E. Hardee</i>	798
SENSITIVE VLBI CONTINUUM AND H I ABSORPTION OBSERVATIONS OF NGC 7674: FIRST SCIENTIFIC OBSERVATIONS WITH THE COMBINED ARRAY VLBA, VLA, AND ARECIBO <i>Emmanuel Momjian, Jonathan D. Romney, Christopher L. Carilli, & Thomas H. Troland</i>	809
ADAPTIVE OPTICS IMAGING AND SPECTROSCOPY OF CYGNUS A. I. EVIDENCE FOR A MINOR MERGER <i>Gabriela Canalizo, Claire Max, David Whysong, Robert Antonucci, & Scott E. Dahm</i>	823
TOWARD A SELF-CONSISTENT MODEL OF THE IONIZED ABSORBER IN NGC 3783 Ⓢ <i>Y. Krongold, F. Nicastro, N. S. Brickhouse, M. Elvis, D. A. Liedahl, & S. Mathur</i>	832
MODELING THE TeV GAMMA-RAY SPECTRA OF TWO LOW-REDSHIFT ACTIVE GALACTIC NUCLEI: MARKARIAN 501 AND MARKARIAN 421 <i>A. Konopelko, A. Mastichiadis, J. Kirk, O. C. de Jager, & F. W. Stecker</i>	851
CIRCUMNUCLEAR STRUCTURES IN THE INTERACTING SEYFERT GALAXY NGC 1241: KINEMATICS AND OPTICAL/INFRARED MORPHOLOGY <i>Rubén J. Díaz, Horacio Dottori, Nelson Vera-Villamizar, & Gustavo Carranza</i>	860
ARE THE FARADAY ROTATING MAGNETIC FIELDS LOCAL TO INTRACLUSTER RADIO GALAXIES? <i>Torsten A. Ensslin, Corina Vogt, T. E. Clarke, & Greg B. Taylor</i>	870
CONSERVATION LAWS IN SMOOTH PARTICLE HYDRODYNAMICS: THE DEVA CODE <i>A. Serna, R. Dominguez-Tenreiro, & A. Sáiz</i>	878
STATISTICAL PROPERTIES OF COLLISIONLESS EQUAL- AND UNEQUAL-MASS MERGER REMNANTS OF DISK GALAXIES <i>Thorsten Naab & Andreas Burkert</i>	893
MOLECULAR HYDROGEN EXCITATION IN ULTRALUMINOUS INFRARED GALAXIES <i>R. I. Davies, A. Sternberg, M. Lehnert, & L. E. Tacconi-Garman</i>	907
THE SPECTRAL ENERGY DISTRIBUTIONS OF INFANT SUPER-STAR CLUSTERS IN HENIZE 2-10 FROM 7 MILLIMETERS TO 6 CENTIMETERS <i>Kelsey E. Johnson & Henry A. Kobulnicky</i>	923
WHEN IS A BULGE NOT A BULGE? INNER DISKS MASQUERADING AS BULGES IN NGC 2787 AND NGC 3945 Ⓢ <i>Peter Erwin, Juan Carlos Vega Beltrán, Alister W. Graham, & John E. Beckman</i>	929
H α EMISSION FROM HIGH-VELOCITY CLOUDS AND THEIR DISTANCES <i>M. E. Putman, J. Bland-Hawthorn, S. Veilleux, B. K. Gibson, K. C. Freeman, & P. R. Maloney</i>	948
A STUDY OF CYGNUS OB2: POINTING THE WAY TOWARD FINDING OUR GALAXY'S SUPER-STAR CLUSTERS Ⓢ <i>M. M. Hanson</i>	957
DUSTY MOLECULAR CLOUD COLLAPSE IN THE PRESENCE OF ALFVÉN WAVES <i>D. Falseta-Gonçalves, M. C. de Juli, & V. Jatenco-Pereira</i>	970
THE PHYSICAL PARAMETERS, EXCITATION, AND CHEMISTRY OF THE RIM, JETS, AND KNOTS OF THE PLANETARY NEBULA NGC 7009 <i>Denise R. Gonçalves, Romano L. M. Corradi, Antonio Mampaso, & Mario Perinotto</i>	975
CONTINUUM AND CO/HCO ⁺ EMISSION FROM THE DISK AROUND THE T TAURI STAR LkCa 15 <i>Chunhua Qi, Jacqueline E. Kessler, David W. Koerner, Annela I. Sargent, & Geoffrey A. Blake</i>	986
POLARIZATION OF PROMPT GAMMA-RAY BURST EMISSION: EVIDENCE FOR ELECTROMAGNETICALLY DOMINATED OUTFLOW <i>M. Lyutikov, V. I. Pariev, & R. D. Blandford</i>	998
THE X-RAY AFTERGLOWS OF GRB 020813 AND GRB 021004 WITH CHANDRA HETGS: POSSIBLE EVIDENCE FOR A SUPERNOVA PRIOR TO GRB 020813 <i>Nathaniel R. Butler, Herman L. Marshall, George R. Ricker, Roland K. Vanderspek, Peter G. Ford, Geoffrey B. Crew, Donald Q. Lamb, & J. Garrett Jernigan</i>	1010

CONTENTS

vii

Page

PROBING THE INFLOW/OUTFLOW AND ACCRETION DISK OF CYGNUS X-1 IN THE HIGH STATE WITH THE CHANDRA HIGH ENERGY TRANSMISSION GRATING <i>Y. X. Feng, A. F. Tennant, & S. N. Zhang</i>	1017
ON THE ORIGIN OF THE VARIOUS TYPES OF RADIO EMISSION IN GRS 1915+105 <i>S. V. Vadawale, A. R. Rao, S. Naik, J. S. Yadav, C. H. Ishwara-Chandra, A. Pramesh Rao, & G. G. Pooley</i>	1023
THE GALACTIC POPULATION OF LOW- AND INTERMEDIATE-MASS X-RAY BINARIES <i>Eric Pfuhl, Saul Rappaport, & Philipp Podsiadlowski</i>	1036
OPTICAL PULSE-PHASED PHOTOPOLARIMETRY OF PSR B0656+14 <i>B. Kern, C. Martin, B. Mazin, & J. P. Halpern</i>	1049
CORONAL ELEMENT ABUNDANCES OF THE POST-COMMON-ENVELOPE BINARY V471 TAURI WITH ASCA <i>Martin Still & Gaiete Hussain</i>	1059
DETECTION OF MgNC IN CRL 618: TRACING METAL CHEMISTRY WITH ASYMPTOTIC GIANT BRANCH EVOLUTION <i>J. L. Highberger & L. M. Ziurys</i>	1065
SIGNS OF PLANETARY MICROLENSING SIGNALS <i>Cheongho Han & Kyongae Chang</i>	1070
HIGH-RESOLUTION SPECTROSCOPIC FOLLOW-UP OF OGLE PLANETARY TRANSIT CANDIDATES IN THE GALACTIC BULGE: TWO POSSIBLE JUPITER-MASS PLANETS AND TWO BLENDS <i>Maciej Konacki, Guillermo Torres, Dimitar D. Sasselov, & Saurabh Jha</i>	1076
EVIDENCE FOR PLANET-INDUCED CHROMOSPHERIC ACTIVITY ON HD 179949 [ⓔ] <i>E. Shkolnik, G. A. H. Walker, & D. A. Bohlender</i>	1092
LOW-FREQUENCY WAVES AND TURBULENCE IN AN OPEN MAGNETIC REGION: TIMESCALES AND HEATING EFFICIENCY <i>Pablo Dmitruk & William H. Matthaeus</i>	1097
FAR-ULTRAVIOLET SPECTRA OF FAST CORONAL MASS EJECTIONS ASSOCIATED WITH X-CLASS FLARES [ⓔ] <i>J. C. Raymond, A. Ciaravella, D. Dobrzycka, L. Strachan, Y.-K. Ko, M. Uzzo, & Nour-Eddine Raouafi</i>	1106
PHYSICAL PARAMETERS OF THE 2000 FEBRUARY 11 CORONAL MASS EJECTION: ULTRAVIOLET SPECTRA VERSUS WHITE-LIGHT IMAGES [ⓔ] <i>A. Ciaravella, J. C. Raymond, A. van Ballegoijen, L. Strachan, A. Vourlidas, J. Li, J. Chen, & A. Panasyuk</i>	1118
SIGNATURE OF AN AVALANCHE IN SOLAR FLARES AS MEASURED BY PHOTOSPHERIC MAGNETIC FIELDS <i>V. I. Abramenko, V. B. Yurchyshyn, H. Wang, T. J. Spirock, & P. R. Good</i>	1135
EMPIRICALLY DETERMINED ANISOTROPIC VELOCITY DISTRIBUTIONS AND OUTFLOWS OF O ⁵⁺ IONS IN A CORONAL STREAMER AT SOLAR MINIMUM <i>R. A. Frazin, S. R. Cranmer, & J. L. Kohl</i>	1145
ON THE ORIGIN OF THE BASAL EMISSION FROM STELLAR ATMOSPHERES: ANALYSIS OF SOLAR C II LINES <i>Philip G. Judge, Mats Carlsson, & Robert F. Stein</i>	1158
INFLUENCE OF PHOTOSPHERIC MAGNETIC FIELDS AND DYNAMICS ON CHROMOSPHERIC K-LINE EMISSION <i>J. K. Lawrence, A. C. Cadavid, D. Miccolis, T. E. Berger, & A. Ruzmaikin</i>	1178
HIGH SPATIAL RESOLUTION OBSERVATIONS OF PORES AND THE FORMATION OF A RUDIMENTARY PENUMBRA [ⓔ] <i>G. Yang, Y. Xu, H. Wang, & C. Denker</i>	1190
THE SCALES OF GRANULATION, MESOGRANULATION, AND SUPERGRANULATION [ⓔ] <i>Mark Peter Rast</i>	1200
RESONANT STRUCTURE IN THE KUIPER DISK: AN ASYMMETRIC PLUTINO DISK [ⓔ] <i>Elizabeth K. Holmes, Stanley F. Dermott, Bo A. S. Gustafson, & Keith Grogan</i>	1211
EROSION MODEL FOR THE SUNGRAZING COMETS OBSERVED WITH THE SOLAR AND HELIOSPHERIC OBSERVATORY <i>Zdenek Sekanina</i>	1237
PHOTON ORBITAL ANGULAR MOMENTUM IN ASTROPHYSICS <i>Martin Harwit</i>	1266
ERRATUM: "CO MOLECULAR GAS IN INFRARED LUMINOUS GALAXIES" (ApJ, 588, 771 [2003]) <i>Lihong Yao, E. R. Seaquist, Nario Kuno, & Loretta Dunne</i>	1271